

## REMARKS

The undersigned thanks the Examiner for the interview which took place on April 19, 2007. The amendments above were discussed at the interview. At the interview, it was understood that the amendments distinguish the prior art of record, and that the Examiner would perform some additional search in connection with this application. The remarks below highlight the issues discussed during the interview.

The application has been carefully reviewed with a view toward placing the application in the best condition for allowance. Amendments have been made in the specification to correct minor typographical and grammatical errors and to provide correspondence between the specification and the drawings.

Claims 12 and 19 to 28 are currently pending in the application. By this amendment, claim 12 has been extensively amended, and claim 13 has been replaced by new claim 23. The indication by the Examiner that claim 16 was directed to allowable subject matter is noted with appreciation. New claims 20 and 26 are directed to that subject matter and, therefore, are assumed to be *prima facie* allowable.

The Examiner raised certain objections to claims 12, 13, 15 and 16. Claims 13, 15 and 16 have been canceled, making the objections to those claims moot. Nevertheless, the Examiner's objections have been taken into consideration in drafting the new claims, and especially claim 23. Concerning claim 12, the phrase on lines 5 and 6 to which the Examiner objected has been amended to read, "a control circuit connected to the header analysis circuit and receiving notification from the header analysis circuit that the received message contains the predetermined header and, in response, the control circuit checks a set of extensions stored in a table and assigns a domain name of the telephone controller to a selected extension and generates an ID comprising the domain name of the telephone controller and the selected extension for the requesting telephone set". It is submitted that this recitation is clear and unambiguous and is an accurate reflection of the specification description. Again, concerning claim 12, the phrase on lines 10 and 11 to which the Examiner objected has been amended to read, "a

memory including a table, the control circuit receiving the allocated IP address from the IP address allocation circuit and storing the IP address and the ID, comprising the domain name and the extension, in the table". It is submitted that this recitation is clear and unambiguous and is an accurate reflection of the specification description. In view of the foregoing amendments to claim 12, it is respectfully requested that the Examiner's objections be withdrawn.

Claims 12 to 15, 17 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,798,767 to Alexander et al. in view of U.S. Patent Application Publication No. US 2006/0195540 to Hamilton et al. In view of the amendments to claim 12 and new claims 19 to 28, it is submitted that this ground of rejection has been overcome.

The problem addressed by the disclosed and claimed invention is how to allocate an extension and IP address to each telephone in a VoIP system. The solution provided by the disclosed and claimed invention is to provide a telephone controller which sets an extension and an IP address to each telephone set. The advantage of the disclosed and claimed invention is that a telephone set can automatically acquire its ID, its IP address, and its extension only by connecting the telephone set to the LAN. The user need have no knowledge of IP or the LAN. All the user needs to do is to connect his or her telephone set to the LAN, which is readily accomplished by a conventional plug and jack.

The procedure is as follows. When the telephone set 200 is connected to the LAN1, it sends a packet including a predetermined header to LAN1. This packet is a message from the telephone set 200 to request allocation of its own IP address to the telephone controller 100. The header analysis circuit 121 receives the message via the LAN interface circuit 120. The header analysis circuit 121 analyzes a header in the packet and notifies the control circuit 110 that the packet is a message that requests the allocation of an IP address, in the case that the header is the predetermined header. The control circuit 110 selects one of a set of extension stored in the table 131 of the memory 130. The control circuit 110 then assigns the domain name of the telephone controller 100 to the selected extension and generates an ID for the requesting telephone set 200. The control circuit 110 sends the ID to the IP address allocation circuit 122. The IP address allocation

circuit 122 generates an IP address corresponding to the ID generated by the control circuit 110. The address allocation circuit 122 sends the ID and the IP address to the control circuit 110. The control circuit 110, in turn, writes the ID and the IP address to the table 131. The control circuit 110 then generates a packet including the IP address and ID of the telephone set 200 via the LAN interface circuit 120 and sends it to the telephone set 200 via the LAN1. The telephone set 200 includes a control circuit 220 which analyzes the packet and stores the IP address, the ID and extension in the memory 203. The display 250 displays the extension assigned to the telephone set 200 by the control circuit 110. All of this is done automatically in response to the user of the telephone set simply connecting the telephone set to the LAN.

Claim 12 is specifically directed to the telephone controller 100, as illustrated in Figure 1 and described above, while claim 23 is directed to a communication system which includes the telephone controller 100 and a plurality of telephone sets 200, 201, as illustrated in Figure 2 and described above.

As one alternative to the foregoing procedure, the extension can be specified by the user, subject to the extension specified by the user not already being registered in the table 131. This is described beginning on page 6, at line 12, and continuing to page 7, line 25. A further alternative is the case where the user name is included in addition to an extension in the ID field. This is described beginning on page 7, line 26, and continuing to page 8, line 6. A variation of this procedure is that different user names can be assigned to one extension, as described on page 8, lines 7 to 10.

Turning now to the patent to Alexander et al., it is clear that while the Alexander et al. communication system is in the same technical field as the claimed invention, it does not disclose or suggest the claimed invention as presented in the pending claims. That is to say, there is nothing in the Alexander et al. patent relating to a user, without any technical expertise, to simply plug his or her telephone set to the LAN and, as a result, the telephone set can automatically acquire its ID, its IP address, and its extension, the Examiner's pure speculation that a "telephony device gets its IP address using DHCP . . . clearly implies that the telephony device sends a DHCP request to a DHCP server . . ."

notwithstanding. The point here is that the call manager 26 of Alexander et al. does not perform the functions of the recited telephone controller 100 which automatically performs the functions of assigning a domain name, generating an ID and allocating an IP address for the requesting telephone set. This distinction was highlighted during the interview where it was noted that column 9, lines 25 and 26 of Alexander makes clear that the telephony device informs the call manager 26 of the IP address (i.e., the call manager 26 is clearly NOT providing the telephony device with an IP address).

The Examiner states that “Alexander does not disclose *expressly* the limitation that the ID generated by the control circuit (and subsequently stored in the table and notified to the telephone set) comprises a domain name” (emphasis added). The use of the adverb “expressly” is misleading. The fact is that Alexander et al. neither *expressly* nor *impliedly* disclose such a limitation. And there is no reason to since Alexander et al. are not at all concerned with a controller which automatically sets an extension and an IP address to each telephone set in response to the user simply connecting his or her telephone set to the LAN.

The Examiner relies on the secondary reference to Hamilton et al. saying, “. . . a VPIM id such as that in paragraph 10, can be used to send voicemail using an email application. This ID contains an extension and a domain name.” Whatever the relevance of Hamilton et al., it is clear that, like Alexander et al., there is no suggestion in Hamilton et al. for a controller which automatically sets an extension and an IP address to each telephone set in response to the user simply connecting his or her telephone set to the LAN. Therefore, Hamilton et al., like Alexander et al., is not relevant to the claimed invention.

Both the independent claims 12 and 23 recite, *inter alia*, a telephone controller that comprises “a header analysis circuit connected to the receiver and which analyzes the message to determine that the received message contains the predetermined header; a controller control circuit connected to the header analysis circuit and receiving notification from the header analysis circuit that the received message contains the predetermined header and, in response, the controller control circuit checks a set of extensions stored in a table and assigns a domain name of

the telephone controller to a selected extension and generates an ID comprising the domain name of the telephone controller and the selected extension for the requesting telephone set; an IP address allocation circuit connected to receive from the controller control circuit the ID and, in response, the IP address allocation circuit allocates an IP address for the requesting telephone set; and a memory including a table, the controller control circuit receiving the allocated IP address from the IP address allocation circuit and storing the IP address and the ID, comprising the domain name and the extension, in the table; said controller control circuit notifying the requesting telephone set of the ID, the extension and the IP address for the requesting telephone set . . .” There is simply no teaching in the prior art as represented by Alexander et al. and Hamilton et al., taken singly or in combination, for this structure.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 12 and 19 to 28 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney’s Deposit Account No. 50-2041.

Respectfully submitted,



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